



TAP Emergency Response Organization

Safety Gala Albania

June 2023



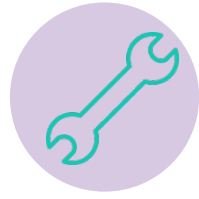
TAP in a nutshell

TAP Overview

TAP is the European leg of the Southern Gas Corridor



Length:
878km
(105km offshore)



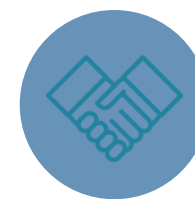
Diameter:
48" onshore
36" offshore



Operation:
built-in physical
reverse flow



Capacity:
can expand from
10bcm/a to 20 bcm/a

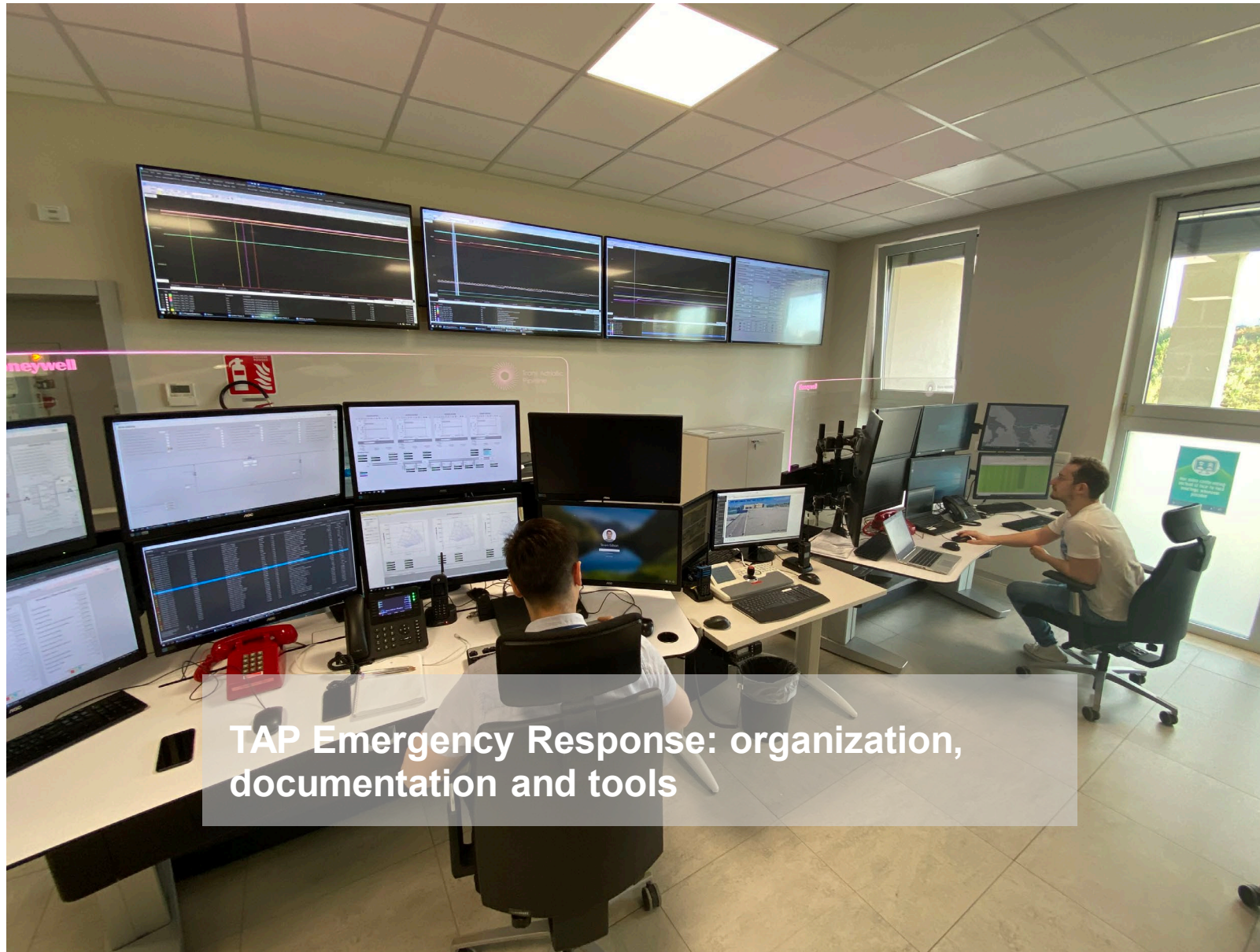


Potential:
facilitating further
interconnections

TAP in Albania. Achieving all the objectives



- TAP's length in Albania is approximately **215 km**.
- Starting at Trestenik (**Devolli Municipality**) near the Greek-Albania border, crossing the mountains up to **2.100 m above sea level**, the pipeline ends in the Adriatic near **Seman (Fier Municipality)**.
- The Albanian section includes **one metering station** near Trestenik, **one compressor station** near Fier for 10 bcm case, **8 block valve stations (BVS)** and **one landfall valve station**.
- Started operations end of 2020
- More than **52 million man-hours working safely and respecting environment**



TAP Emergency Response: organization, documentation and tools

TAP is not just a pipe....



4 Countries

4 Languages

3 Main O&M Contractors

Offshore

Landowners

Many stakeholders



Italy O&M Centre



Albania O&M Centre



Greece O&M Centre



Italy AM Office



Albania AM Office



Greece AM Office

There are many actors involved

Main O&M Contractor

AGSco

Other Specialists

Pipeline Repair Specialists

Offshore Repair hub

ISOS

Journey Management Center

Civil Contractor

Civil Protection Authorities

Prefecture

Municipality

Fire Service

Police

Health Services

Army

Others

TAP CMT – Baar Switzerland

TAP IMT -Tirana

TAP ERT

TAP Dispatchers

TAP O&M Engineers

AGS Response Team

And Stakeholders

Press

Local

International

Affected People

Public

TAP's Families

TAP 's Contractor Families

Partners

Shareholders

Lenders

Response Priorities in an Emergency



PEOPLE



ENVIRONMENT



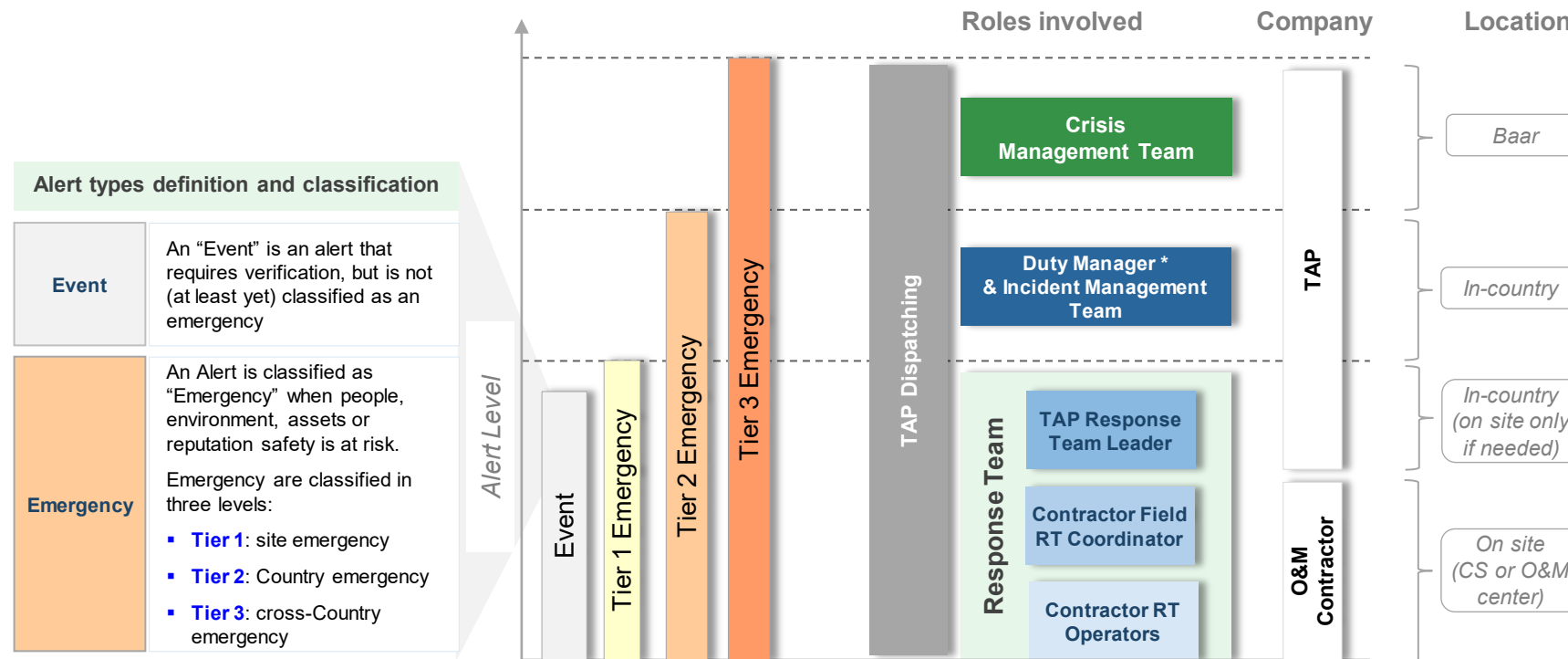
ASSET



REPUTATION

Alert Management Response Model

TAP's **Alert Response model** is based on the management of "**events**" and "**emergencies**" at the different levels defined with roles, responsibilities and organisational structure.



Alerts might be raised from different sources such as the SCADA (Supervisory Control and Data Acquisition) System, internal/external calls, patrolling

Depends on the severity and complexity of the emergency it is escalating from Tier 1 to Tier 3

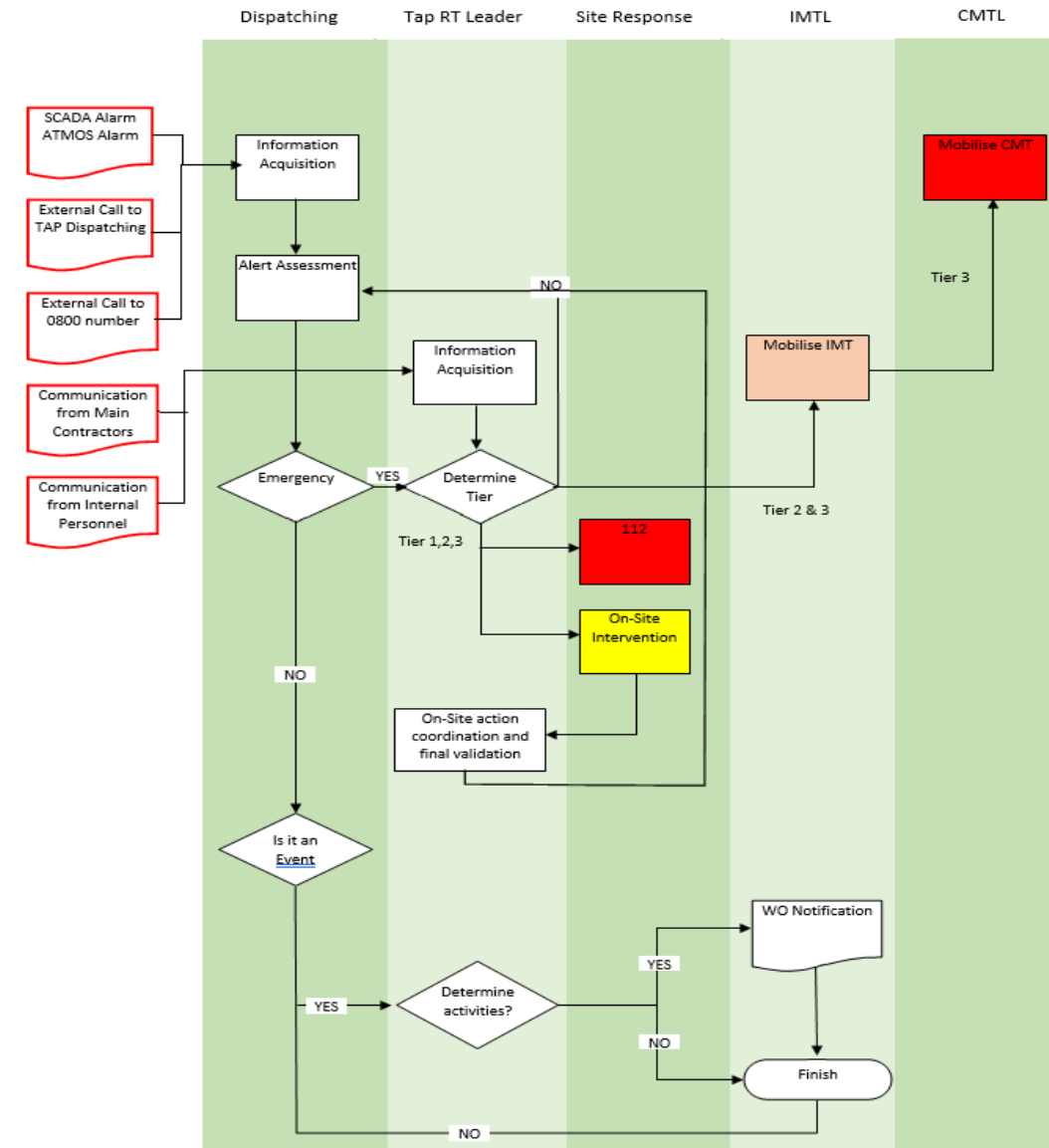
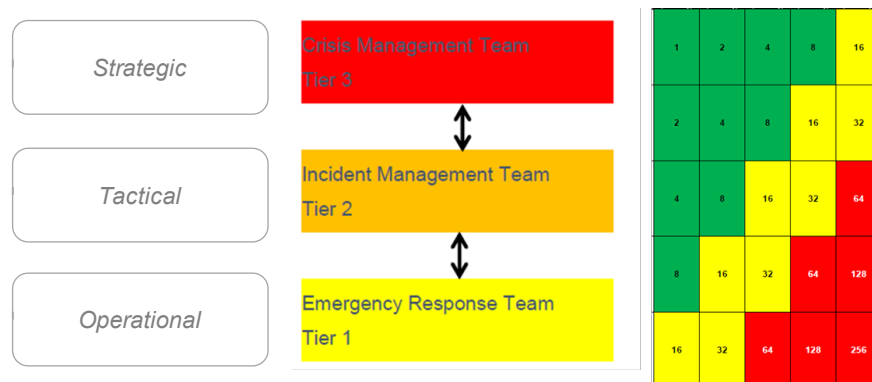
Alert Management Response Model

TAP has established an alert management process and associated resources to ensure:

- The public, 3rd parties and Emergency Response Organisations know how to contact TAP
- Calls to the TAP ER number are answered in Albanian
- Communications between the various TAP teams is efficient and accurate (generally in English)

TAP staff is trained to ensure that they understand each aspect of the Alert Management Process including as appropriate:

- Recording / logging of data
- Use of agreed guides to determine the scale of the “event” and hence the scale of the response ie “Tier 1,2 or 3”

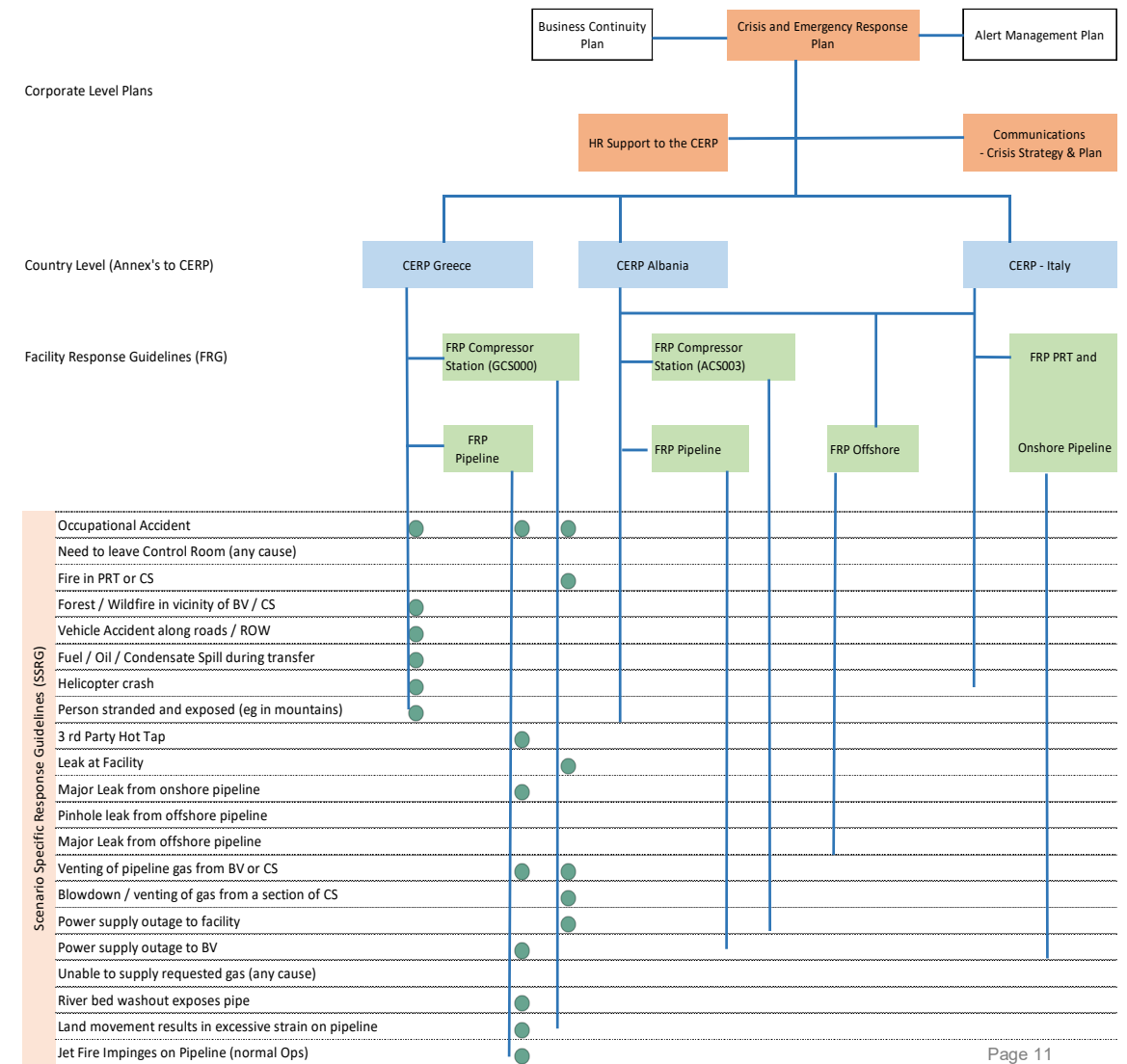


Emergency Response Documents

TAP has developed a comprehensive set of ER documents that cover:

- Business Continuity
- Country Specific Corporate Response
- Filed Guides

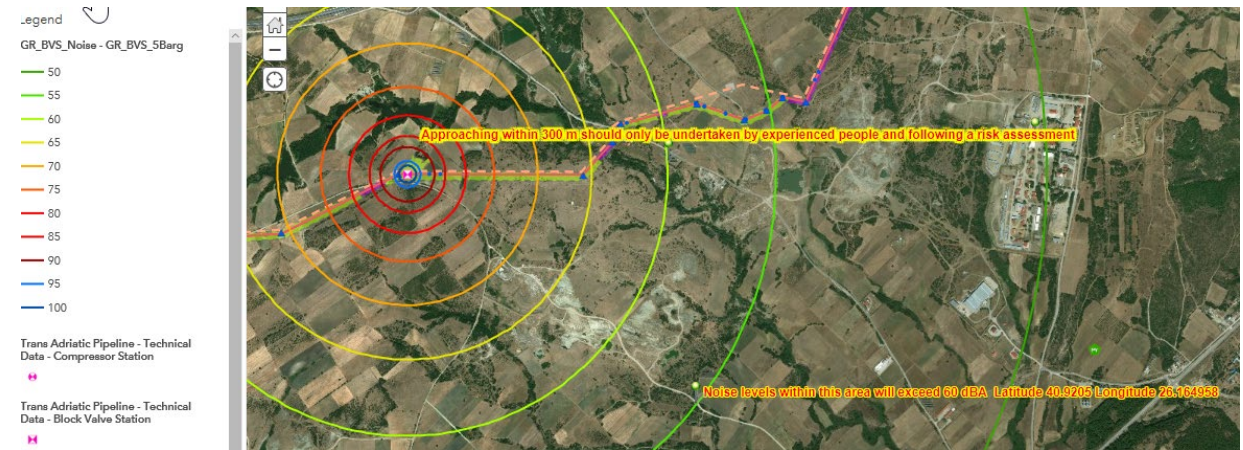
○ The C&ER Plan	Documents for use by TAP head office (ie CMT)
○ Country Level Manuals / Annex <ul style="list-style-type: none"> ○ Greece ○ Albania ○ Italy 	Key documents for TAP Management in Country (ie IMT)
○ Facility Specific Plans	Key Documents for Albanian Emergency Services and TAP Operations and Maintenance People (including AGSco)
○ Scenario Specific Response Guidelines	
○ Associated docs.	Alert Management Plan HR Support Doc. Communications Crisis and Strategy Plan Business Continuity Plan
○ Dispatchers Procedures ○ Operational Risk Protocols ○ Alarm Management Procedures	Used by TAP Dispatchers and Engineers



Emergency Response tools

SCADA and GIS are key tools in ER

Leak Detection	The system design includes a leak detection system that will be monitored from the TAP Control Centre in Lecce Italy
SCADA	The Supervisory Control and Data Acquisition (SCADA) systems enable remote control of key elements of the system including isolation of pipeline sections (by closure of Block Valves) and shut down of compressors and an entire station if necessary
GIS	Geographical Information System (GIS) will be a key tool in identifying potentially impacted areas (i.e. from noise, possible fire or air quality / explosion potential). This information will then be relayed to the site response teams including police and other emergency services



This example shows the noise contours if emergency venting is undertaken from a Block Valve. The contours have been developed from noise modelling and are included in the TAP GIS – this particular scenario is with a pipeline pressure of 5 bar (approximately the pressure during IOH)

The notes have been added in the GIS environment as an example of what type of information could be extracted and provided to the Emergency Services ie:

- Estimated scenario / response specific noise contours
- “NO GO” zone where LEL could be exceeded
- Emergency Services only – where radiation levels could be high
- Notification and / or evacuation area limits (due to noise, radiation etc)



Emergency Response Workshops & Tabletops

Emergency Response Workshops & Tabletop Meetings

TAP organized **Emergency Response workshops**, in coordination with Ministries, Civil Protection Authorities and local and central actors, in Korca, Berat and Fier municipalities during the IOH Phase and further organized **tabletop meetings** during the operations phase.

The meetings involved the participation of **all stakeholders** involved in the **Emergency Response**, especially focused on the area along the **TAP pipeline route**.

TAP organized **tabletop meetings**, prior to each **Emergency response exercise** with all stakeholders, part of the Albanian Emergency Services in order to:

- a) share a **refresher presentation** on the TAP current operations status, emergency response protocols, actors and communication lines,
- b) **introduce** the **exercise scenarios** and expected involvement of Civil Emergency Response Authorities,
- c) hold an **open discussion** on the **procedures** the Civil Emergency Response authorities need to follow and how **communication** should be structured.





Emergency Response Exercises

An aerial photograph of a large industrial facility, likely a gas processing plant or refinery, during emergency response exercises. The facility is enclosed by a perimeter fence and features several large, rectangular buildings with flat roofs. A complex network of pipes, including yellow and silver lines, runs across the site. In the foreground, there are two large, dark, rectangular structures that appear to be heat exchangers or distillation columns. The ground is a mix of light-colored dirt and paved areas. The overall scene is well-organized and shows a high level of industrial infrastructure.

Emergency Response Exercises- Aim and Objective

Aim:
The aim of these exercises is to practise the response to an incident affecting TAP operations in Albania.

- Objectives:**
- Practise communications between TAP and main OM Contractor
 - Practice communications between TAP and External Emergency Services
 - Practise communications between TAP ERT (Tier 1) and TAP IMT (Tier 2) (and Tier 3 if activated)
 - Practise the technical response

Exercise Fatih: Potential gas leak on ABV29, Vodice Berat, 11th October 2021

- After raising the alert coming from one of the different sources (SCADA system), **Dispatchers evaluated and assessed the event/or emergency.**
- Based on the level of the emergency instructs ERTL and **TIER 2 was activated.**
- ERTL **notified** Asset Manager and / ER Coordinator and **mobilised O&M contractor** on Call (ERT).
- After evaluation of the **potential risks** and safety risks of people, environment and asset, **calculation of safety perimeter** was established by Dispatchers.
- ERTL/ER coordinator **notified the main coordination centre of Emergency Services 112** and asked to simultaneously **mobilise police and fire brigade** and provided the **initial safety perimeter.**
- ERTL once **Emergency services at site** clearly instructed and **confirmed the security line** to the police and safety zones to fire brigades.
- Police department: distance 7.3 km from the Berat Police department. Reaction time: 10 minutes
- Fire brigade: distance 7.5 km from the Berat Firefighting Station. Reaction time: 15 minutes

Exercise Harmoni: Potential leaked facility on ACS03 Seman Fier, 30th June 2022





SEI Investment: Capacity Building for Firefighting Brigades

Investment- Capacity Building for Firefighting Brigades

As part of its Social and Environmental Investment (SEI) “**Capacity Building for Firefighting Brigades**” project, TAP has **donated** a fleet of **16 firefighting vehicles** (7 trucks and 9 pick-Up vehicles) to **10 municipalities** across the route of the pipeline in Albania.

€ 2.1 million investment aiming to support the Fire Fighting system.

The investment is the outcome of a **close collaboration** with the **Ministry of Infrastructure and Energy**, the **Civil Emergencies Authorities**, the **Firefighting Institutions**, the **Ministry of Interior**, and **internationally certified firefighting institutions**.

Among all the other benefits this project brings to the fire brigades in Albania, it also creates a unified firefighting fleet across these 10 municipalities which is expected to improve the efficiency of the local firefighting efforts.

The project started back in 2019 and was developed in stages.

- Initially, a specialized institution **assessed** the **technical conditions of the fire brigades** in the 10 municipalities and **identified their needs**.
- Based on this assessment, an **international curricula training programme** was **designed** by specialized partners and was **offered** to all the fire brigades of the 10 municipalities along the pipeline route. In total, **168 firefighters** were trained for almost **40 days**.
- Finally, TAP launched an **international tender** to identify the **fleet supplier**. A company with a robust international experience in the firefighting sector, was selected through this tender.

The new firefighting fleet, is **fully compliant** with the **EU standards** and is covered by the necessary guarantees.

